

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-17 are pending in this application. Claim 1 is the only independent claim. Claims 1-17 are hereby amended. Claims 18 and 19 are hereby canceled without prejudice or disclaimer of subject matter. Support for this amendment is provided throughout the Specification as originally filed. No new matter has been introduced. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Figure 4 has been labeled “prior art”, thereby obviating the objection.

Claims 1-19 were objected to as containing grammatical and idiomatic errors. Claims 1-17 are hereby amended, obviating the objections. Specifically, the Office Action objected the use of broad range limitations together with narrow range limitations within the same claim. Expressions such as “and/or”, “in particular”, and “or the like” have been removed from the claims. Additionally, the claims have been amended to correct typographical errors.

II. REJECTIONS UNDER 35 U.S.C. §112

Claims 1-19 were rejected under 35 U.S.C. §112, first paragraph as allegedly containing subject matter that was not described in the specification. Claims 1-19 were rejected under 35 U.S.C. §112, second paragraph as allegedly indefinite. Claims 1-17 are hereby amended, obviating the rejections under 35 U.S.C. §112 first and second paragraphs.

Specifically, the Office Action indicated that the secondary illumination light providing portion 30 and its functionality were unclear since member 30 seemed to receive secondary illumination light only and did provide the secondary illumination light L2. However, Applicants submit that the secondary illumination light providing portion 30 provides the secondary illumination light (L2) for external use when the inventive illumination unit is used, for example, in an image projector or similar application. Thus, the provision of secondary illumination light L2 is meant in the sense that the secondary illumination light providing portion 30 provides the secondary illumination light L2 for external use, e.g. within a projector. Claim 1 has been amended to recite that the secondary illumination light providing portion is adapted to provide secondary illumination light for external use.

III. REJECTIONS UNDER 35 U.S.C. §102(b)

Claims 1, 3 and 5 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 5,179,463 to Kramer. Claims 1, 2, 5, 6 and 15-17 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 6,330,112 to Kaise et al.

The present invention relates to an illumination unit that includes a primary illumination light providing portion (10) which is adapted to provide primary illumination light (L1) and a secondary illumination light providing portion (30) which is adapted to provide

secondary illumination light (L2), which is derived from the primary illumination light (L1). A light selecting element (20) is disposed between and assigned to the primary illumination light providing portion (10) and the secondary illumination light providing portion (30).

It is therefore an aspect of the present invention to provide at least one light selecting element that is adapted to function simultaneously as means for selecting one or more predefined spectral components of incident primary illumination light and to select one or more predefined polarization components of the primary illumination light. Consequently, by combining selection functions with respect to the spectral components and the polarization components in one device, the illumination unit, according to the present invention, occupies less space compared to prior art illumination units that employ a first device for selecting spectral components or colors and a second device for selecting polarization components.

Independent claim 1, as amended, recites that the light selecting element 20 comprises a dichroic multilayer structure 25 which is adapted in order to act as a dichroic spectral filter device for incident primary illumination light L1 and that the dichroic multilevel-structure 25 at least in part forms at least a part of a diffractive grating structure 21 of said light selecting element 20.

As understood by Applicants, the cited portions of U.S. Patent No. 5,179,463 to Kramer (hereinafter, merely "Kramer") relate to a simultaneous multibeam scanning system. For example, Fig. 1 shows the primary illumination light providing portion as a laser light source 26 and a secondary illumination light providing portion as a collimating lens 42. Between these elements 26 and 42, a polarization selective beam splitter 30 with a polarization selective interface 31 is provided and serves as a light selecting element. However, the light selecting

element 30 is not capable of selecting a plurality of colors or spectral components from the primary illumination light generated and provided by the laser 26.

Thus, Applicants submit that Kramer does not disclose or suggest claim 1.

As understood by Applicants, the cited portions of U.S. Patent No. 6,330,112 to Kaise et al. (hereinafter, merely "Kaise") relate to an apparatus having a primary illumination light providing portion in the sense of a discharge lamp 11 and a secondary illumination light providing portion as a projection lens 70 between which a combination of a polarization selective beam splitter 17 and the variety of dichroic mirrors 66B, 66R, and 66G is arranged in order to serve in their combination as a light selecting element which is capable of selecting polarizations and spectral components from the incident primary illumination light column 4, line 60-column 6, line 41. Applicants submit that Kaise does not disclose a single device or entity.

Thus, Applicants submit that neither Kramer nor Kaise disclose or suggest the features of claim 1. Therefore, Applicants submit that claim 1 is patentable.

IV. REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 4, 7-14, 18 and 19 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,330,112 to Kaise et al. in view of U.S. Publication No. US 2002/0063962 to Takada et al.

Claims 4 and 7-14 depend on claim 1 and are therefore believed to be patentable for at least the reasons provided in relation to claims 1.

Applicants submit that nothing has been found in the cited portions of U.S. Publication No. US 2002/0063962 to Takada et al. that would provide the disclosure lacking in Kramer and Kaise. For example, Takada relates to a diffractive optical element, which shows a

multilayer structure: Fig, 1-4. However, this structure does not show polarization selection properties.

V. DEPENDENT CLAIMS

The other claims in this application are each dependent on claim 1, discussed above, and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

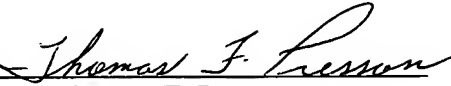
CONCLUSION

In the event the Examiner disagrees with any of statements appearing above with respect to the disclosures in the cited references, it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,
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IN THE DRAWINGS

The attached sheet includes amended Figure 4, which is labeled “Prior Art”. This sheet replaces the original Figure 4.